8. HEALTH CARE COSTS AND OUTCOMES

Health Care Costs in the U.S.[1]

In 1994, the United States spent 949.4 billion dollars on health care, $3,510 for each citizen. These sums represent 13.7% of the Gross Domestic Product (GDP). Although not released, the 1996 figures will have health care costs over one trillion dollars and 15% of the GDP. In 1994, 19.4% of the federal budget was spent on health, while among state and local governments 13.8% of expenditures went for health.

In 1960, the U.S. spent 26.9 billion dollars on health, 5.1% of the GDP. Since 1965, the average annual increase in health expenditures has been 11.4%. Health care costs have grown significantly faster than other parts of our economy: food, apparel and upkeep, housing, energy, and personal care. Since 1950, the Consumer Price Index has increased an average of 4.2% per year while health has grown 45% faster with a 6.1% increase each year.

The private sector pays a majority of health care costs. Sixty-five point one percent (65.1%) of these costs are covered by the private sector. Twenty-eight point two percent (28.2%) of this comes from private business while 33.9% comes from households (individuals). Nineteen point eight percent (19.8%) of this household health expenditure is out-of-pocket spending by individuals. Public funds account for 34.9% of health spending, 18.4% from federal government, and 16.6% from state and local government.

After World War II the United States had average health spending compared to other developed nations. Today, the U.S. spends far more money and GNP percentage on health than any other nation. At 13.6% of the GNP in 1994, the U.S. is trailed by Canada (10.3%), France (9.4%), Germany (8.7%), Japan (6.9%), and the United Kingdom (7.1%), just to name a few similar countries.

Health Outcomes in the United States[2,3,4]

Given that the U.S. spends so much money on health care, then surely we are the healthiest country in the world. The best way to compare countries in terms of health is to look at infant and child indicators and adult health status.

The U.S. Department of Health and Human Services publishes an annual report on health each year. In 1994, that publication compared us to 12 similarly developed countries. In terms of infant indicators, low birth weight, neonatal mortality, and infant mortality, we were LAST! For infant mortality, Finland and Japan had 4.4 and 4.5 deaths, respectively, per 1,000 live births. The U.S., at number 18 among the nations of the world, had a rate of 8.3 per 1,000 live births.

For childhood and youth death rates, the U.S. was about in the middle for the 13 compared countries mentioned above. In terms of preschool immunizations, we were 11 of 13 for DPT and polio and 9 of 13 for measles. (1 was best; 13 worse.)

For adults, we didn't do much better. Our age adjusted death rate was 9th among the 13 nations compared. Life expectancy at age 20 was 11 of 13 for females and 8 of 13 for males. In Japan, life expectancy at birth is more than 3 years greater than in the U.S. A 3-year AVERAGE for an entire country is considered quite significant. This is especially impressive because, in the early 1950s, Japanese had shorter life spans than Americans. Even though they spend half as much on health as Americans, their average health for each citizen is far better.

Explanations for Rapid Growth and High Health Care Costs[1,5]

The growth of health care costs and their current high level have many explanations. Much money has gone into technology and research. The U.S. spends more money in these areas than other nations. The majority of increased costs (~70%) in the U.S. is explained by a continued expansion of health benefits among employed U.S. workers and other groups that have health insurance. Our citizens have an insatiable appetite for health care. As a country and as a culture we have a belief that more medical care will improve health. In addition, most people wait until they are ill to deal with their health. In a fee-for-service health care system, it is easy to spend large sums for illness care, which is what we do. Less than 2% of our health care dollar goes toward public
health. This fact seems counter-intuitive when one realizes that the largest gains in life expectancy in this century have come from public health efforts: clean air and water, sanitation, immunizations, reduced crowding, etc.

Are we spending our health care dollars effectively? Does outcome justify cost? The answers appear to be that we are very inefficient. Many of the interventions we perform are of unproven benefit. Medical practice varies enormously between physicians and hospitals and from city to city. For instance, in a Detroit suburb, among low risk women, cesarean section rates vary from 9.6% in some physicians to 31.8% in others. The chances of a child in Vermont reaching age 20 without tonsils varies from 40% to 90%, depending on the community. In one study of an outstanding hospital, 36% of patients acquired a new medical problem caused by the medical care received. Nine percent (9%) of patients were considered to have acquired a life-threatening or disabling condition. Many studies document inappropriate medical care. According to expert opinion, the following studied categories were considered inappropriate: Carotid endortenectomies (65%), tonsillectomies (86%), pacemaker insertions (20%), hospital admissions (6-19%), and hospital days (20-39%).

Most experts feel that there is so much inefficiency and ineffectiveness in our health care system that billions of dollars can be saved by requiring more accountability in the system. Quality assurance programs based on actual outcomes are being instituted. The theory of managed care is basically a system of constraints to better control costs. These constraints are clashing head on with the traditional autonomy granted to the professions, in this case medicine. Doctors fear that many of the current constraints will result in decreased quality of care.

Theoretically, we should be able to control or overcome the huge amounts of money spent on health care that do not improve health. So far, however, the interventions have only

been partially successful. Most studies document that maybe half of the money saved by various systems of accountability come from ineffective practices. Unfortunately, another large portion of savings comes from denying care that has proven effective.

Although many illness care dollars pay for interventions that either are not effective or even do harm, many proven interventions are not getting to those in need. Only 50-60% of people in the U.S. with hypertension have their blood pressure adequately controlled. Less than 10% of those people with very high cholesterol in definite need of treatment, in fact, have their levels under control. Among the thousands of citizens with heart failure, many are not receiving the ACE inhibitors that have been proven to lengthen life in repeated clinical trials.

What Are Health Care Costs in Kansas and Wichita?[6,7]

As noted in the table below, health care costs in Kansas are below average. In 1993, we spent $2,723 per capita on health care compared to a national average of $3,020. Still, Kansans spent almost 7 billion dollars on health care that year.

TABLE 1.

PERSONAL HEALTH CARE EXPENDITURES
1993

STATE	TOTAL (millions)	% GROWTH	TOTAL POP. 1982-1992	% OF GROSS STATE PRODUCT
Kansas	6,903	8.6	2,723	11.7
Connecticut	12,216	10.8	3,727	11.7
Massachusetts	23,421	10.0	3,892	13.6
New Mexico	3,878	11.0	2,400	11.2
Utah	4,118	10.3	2,214	10.8
USA	778,510	9.9	3,020	12.1

Unfortunately, no data is specifically available for Wichita and Sedgwick County. We do, however, have data for hospital referral regions. Kansas has three referral regions: Kansas City, Topeka, and Wichita. The Wichita region covers most of the geographical area of the State except for areas around Topeka and Kansas City. The Wichita hospital referral region covers 1,169,518 people compared to 421,682 for Topeka. In this region, hospital costs are exactly the national average ($1,051 vs $1,053 per capita). Hospital costs only account for about one-third of total health care costs. Costs in Topeka are 21% less than Wichita ($826 vs $1,051 per capita). Of course, these costs are an average of hospital costs throughout our region and not specific to Wichita area hospitals. Importantly, per capita hospital costs in Seattle, Washington are $914, which is 13% below costs in Wichita. Therefore, the Boeing Company, undoubtedly, is displeased with the increased expense for their employees in Wichita.

Physicians and Their Health Outcomes in the Wichita Hospital Referral Region[7]

In the large Wichita Hospital Referral Region just described, our supply of physicians is closer to ideal than most communities. A recent article in the *Journal of the American Medical Association*[8] uses Wichita as a national benchmark. Our supply of primary care physicians per 100,000 residents in 1993 was 62, close to the U.S. average of 66 and the large HMO average of 56.2. Our 80.2 specialists per 100,000 residents was far less than the U.S. average of 121.7 and close to the large HMO average of 69. Most experts agree that this country has far too many specialist physicians. Furthermore, there is a direct correlation between number of physicians and total health care costs in a fee-for-service health care market. It would appear that physicians generate health care costs regardless of need, perhaps by providing unnecessary care.

Despite these good figures, the Wichita region has some disturbing figures among Medicare enrollees. For coronary artery bypass surgery, angioplasty, and coronary angiography, we do 13%, 27%, and 23% more procedures per 1,000 Medicare enrollees than the national average. We do this with almost 40% fewer cardiologists than the national average. In other words, cardiologists and heart surgeons in the Wichita area are doing many more procedures than most places in the U.S. What we don't know is whether our heart patients are doing better than elsewhere. State statistics on deaths from heart disease in Kansas show rates higher than the national average.

Mammography rates, percentage breast sparing surgery are below the national average, while back surgery rates and hip fracture repair rates are only slightly above average. These, and other relevant statistics for Wichita, from The Dartmouth Atlas of Health Care can be found at the end of this section.

Another example of medical practice variation is the number of transurethral prostatectomies done on Medicare patients. Our rate of 16.5/1,000 enrollees is 28% higher than the national average. And this figure is achieved with 21% fewer urologists than the national average. Our radical prostatectomy rates (also a urological procedure) are 15% higher than the national average.

Health Insurance Coverage in Wichita, Kansas and the U.S.[6]

The United States is one of the few, if not the only, developed country in the world that does not assure access to health care for all of its citizens (see Table 2). In fact, 17.3% of our non-elderly population does not have health insurance at any particular time. As noted in Table 3, Kansas is better than average, with only 15.5% uninsured. Note also the percentage of the population covered by Medicaid.

TABLE 2.

PUBLIC COVERAGE AGAINST MEDICAL CARE COSTS	
Country	1990 (%)
Australia	100.0
Austria	99.0
Belgium	98.0
Canada	100.0
Denmark	100.0
Finland	100.0
France	99.5
Germany	92.2
Greece	100.0
Iceland	100.0
Ireland	100.0
Italy	100.0
Japan	100.0
Luxembourg	100.0
Netherlands	69.0
New Zealand	100.0
Norway	100.0
Portugal	100.0
Spain	99.0
Sweden	100.0
Switzerland	99.5
Turkey	55.1
United Kingdom	100.0
United States	44.0

TABLE 3.

LACK OF HEALTH INSURANCE AND MEDICAL COVERAGE BY STATE		
STATE	% OF NON-ELDERLY POPULATION WITHOUT HEALTH INSURANCE	% WITH MEDICAID
Kansas	15.5 +- 2.8	9.2 +- 2.2
California	23.7 +- 1.2	16.7 +- 1.1
New Mexico	26.4 +- 3.2	17.4 +- 2.7
Texas	26.6 +- 1.6	12.4 +- 1.2
Wisconsin	9.8 +- 2.1	7.8 +- 1.9
Vermont	9.6 +- 2.5	11.2 +- 2.6
USA	17.3 +- 0.3	12.6 +- 0.3

For metropolitan statistical areas (MSAs), Wichita has a below average percentage of persons without insurance (see Table 4). Still, it is significantly higher than Knoxville, Tennessee, where state legislators extended Medicaid coverage to most persons. The figures from our randomized telephone survey in Wichita showed that 13.7% of our residents (ages 18-65) were without insurance the day of the survey. Over the preceding 12 months, 5.7% of our non-elderly were continuously uninsured while another 14.9% were periodically uninsured. Our phone survey rate of 4% with Medicaid probably represents the correct percentage among adults. Children were not surveyed. A Medicaid rate of 11.2% for all residents of Wichita is probably the correct figure.

TABLE 4.

LACK OF HEALTH INSURANCE AND MEDICAID COVERAGE BY MSA		
MSA	% WITHOUT INSURANCE	% WITH MEDICAID
Wichita, KS	11.1 +- .6	11.2 +- 6.6
Kansas City, KS	11.9 +- 3.9	15.5 +- 4.3
Oklahoma City, OK	18.5 +- 5.8	12.4 +- 4.9
Tulsa, OK	18.6 +- 6.2	14.8 +- 5.6
Knoxville, TN	5.4 +- 4.0	27.2 +- 7.8
Los Angeles-Long Beach, CA	32.0 +- 2.2	18.0 +- 1.8
Seattle, WA	15.7 +- 3.1	9.5 +- 2.5

Another problem for Wichita is the unknown number of illegal immigrants, especially Hispanic persons from Mexico. We suspect the numbers are significant, but no reliable data is available.

Growing HMO Market[6]

Managed care is growing rapidly throughout the country as a means of slowing the growth of health care costs. The change seems to be working, since costs increased less in 1994 than they have in decades. It remains unclear, however, how long managed care will last before some other mechanism for cost control arises. The major issue right now is whether costs can be held down without adversely affecting quality. Many individuals are concerned about decreased access and satisfaction with their new restricted plans.

The two tables below show that HMO penetration in Kansas and Wichita lags behind much of the nation. For the Wichita HSA, two figures are given. The 4.5% penetration figure comes from an Inter Study National HMO Census. Their population denominator includes the elderly and persons with no insurance. The 14.7% HMO enrollment by household comes from the National Research Corporation's (NCR) Health Care Market Guide Survey, which probably under estimates households with no insurance. The true HMO penetration figure for Wichita is somewhere between 4.5% and 14.7%, but the figure is rising steadily because HMOs have been more cost effective than other plans elsewhere in the country.

TABLE 5.

HMO MARKET PENETRATION BY STATE JANUARY 1995				
STATE	TOTAL COMMERCIAL %	MEDICARE	MEDICAID	PURE & OPEN TOTAL
Kansas	4.6	0.4	0.0	4.7
California	29.7	3.7	1.8	35.8
Arizona	20.2	3.9	1.1	26.6
Massachusetts	33.7	1.1	1.5	38.7
USA	15.1	1.1	1.3	19.2

TABLE 6.

HMO MARKET PENETRATION BY HAS JANUARY 1995				
HSA	PURE & OPEN TOTAL	NO. OF PLANS	HMO INSUR % OF HOUSEHOLD	PPO INSUR % OF HOUSEHOLD
Wichita	4.5	3	14.7	19.7
Kansas City	20.9	12	31.1	24.4
Oklahoma City	11.4	5	24.3	23.8
Tulsa	13.4	5	28.6	24.0
San Diego	31.5	11	53.8	11.9
Minneapolis-St. Paul	39.4	9	55.1	12.1
USA	19.2	562	27.1	11.8

References

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